Appl. No. 09/834,237   APP 1258
Amdt. Dated January 14, 2005
Reply to Office Action of November 4, 2004

<u>Listing of Claims</u>

Claim 1 (currently amended) A method for facilitating intra-domain mobility, said
method comprising the steps of:

        providing a first network that includes a first agent including location information
about a mobile node, <u>said first agent further including a globally accessible redirection
agent</u>;

        providing a second network that includes two or more subnetworks and a second
agent; and

        registering the mobile node with the second agent such that the mobile node
transitions from any of the subnetworks to another subnetwork without communicating to
the first agent information about the transition and without communicating to the second
agent information about a security association between the mobile node and the first
agent.

Claim 2 (cancelled)

Claim 3 (currently amended) ~~The~~ <u>A</u> method ~~of claim 1,~~ <u>for facilitating intra-domain
mobility, said method comprising the steps of:</u>

        <u>providing a first network that includes a first agent including location information
about a mobile node;</u>

        <u>providing a second network that includes two or more subnetworks and a second
agent; and</u>

        <u>registering the mobile node with the second agent such that the mobile node
transitions from any of the subnetworks to another subnetwork without communicating to
the first agent information about the transition and without communicating to the second
agent information about a security association between the mobile node and the first
agent, and</u>

        wherein the step of registering the mobile node with the second agent comprises
the steps of:

        receiving at the mobile node, a local care-of address (LCOA) and a global care-
of-address (GCOA); and

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registering the mobile node with the second agent, wherein the LCOA is used to forward a communication to the mobile node without determining a specific route to the mobile node.

Claim 4 (currently amended) ~~The~~ A method ~~of claim 1,~~ for facilitating intra-domain mobility, said method comprising the steps of:

providing a first network that includes a first agent including location information about a mobile node:

providing a second network that includes two or more subnetworks and a second agent; and

registering the mobile node with the second agent such that the mobile, node transitions from any of the subnetworks to another subnetwork without communicating to the first agent information about the transition and without communicating to the second agent information about a security association between the mobile node and the first agent; and

wherein the step of registering the mobile node with the second agent comprises the steps of:

registering the mobile node with a third agent associated with one of the subnetworks;

sending by the third agent, a local care-of address (LCOA) and a global care-of address (GCOA) to the mobile node; and

registering the mobile node with the second agent, wherein the LCOA is used to forward a communication to the mobile node without determining a specific route to the mobile node.

Claim 5 (original) The method of claim 4, wherein the third agent includes a subnet agent.

Claim 6 (original) The method of claim 4, wherein the third agent includes a dynamic host configuration protocol (DHCP) server.

Claim 7 (original) The method of claim 4, wherein the third agent includes a dynamic configuration and registration protocol (DRCP) server.

Claim 8 (original) The method of claim 4, wherein the GCOA includes an address of the second agent.

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Claim 9 (cancelled)

Claim 10 (original) The method of claim 3, further comprising providing by the mobile node the GCOA to the first agent.

Claim 11 (cancelled)

Claim 12 (currently amended) The method of claim 3, further comprising the steps of:

receiving in the first network a communication addressed to the mobile node;

intercepting the communication by the first agent;

forwarding , at the first agent, the communication to the GCOA;

intercepting of the communication by the second agent; and

forwarding, at the second agent, the communication to the mobile node.

Claim 13 (original) The method of claim 12, wherein the step of forwarding the communication to the mobile node comprises the steps of:

encapsulating the communication to include the LCOA of the mobile node; and

sending the encapsulated communication to the LCOA.

Claim 14 (currently amended) The method of claim 13, further comprising the steps of:

decapsulating the encapsulated communication by the a third agent; and

forwarding the decapsulated communication to the mobile node.

Claim 15 (currently amended) The A method of claim 1, wherein for intra-domain mobility, said method comprising the steps of:

providing a first network that includes a first agent including location information about a mobile node;

providing a second network that includes two or more subnetworks and a second agent, the step of providing a second network includes providing at least two second agents.; and

registering the mobile node with a second agent such that the mobile node transitions from any of the subnetworks to another subnetwork without communicating to

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the first agent information about the transition and without communicating to a second agent information about a security association between the mobile node and the first agent.

Claim 16 (original) The method of claim 15, wherein the step of registering the mobile node comprises the steps of:

    providing a mobility server in the second network;

    allocating dynamically by the mobility server one of the at least two second agents; and

    registering the mobile node with the allocated second agent.

Claims 17-20 (cancelled)

Claim 21 (currently amended) ~~The~~ A system ~~of claim 17,~~ for facilitating intra-domain mobility, said system comprising:

    a first network that includes a first agent including location information about a mobile node; and

    a second network that includes two or more subnetworks and a second agent, wherein the second agent is programmed to allow the mobile node to transition from any of the subnetworks to another subnetwork without communicating information to the first agent about the transition and without communicating to the second agent information about a security association between the mobile node and the first agent, and

    wherein the second network includes a third agent associated with one of the subnetworks.

Claim 22 (original) The system of claim 21, wherein the third agent includes a subnet agent.

Claim 23 (original) The system of claim 21, wherein the third agent includes a DHCP server.

Claim 24 (original) The system of claim 21, wherein the third agent includes a DRCP server.

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